



# UNITED STATES PATENT AND TRADEMARK OFFICE

*mm*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,431	07/25/2003	Daniel D. Baker	58912US002	2342

32692 7590 06/07/2004

3M INNOVATIVE PROPERTIES COMPANY  
PO BOX 33427  
ST. PAUL, MN 55133-3427

EXAMINER
----------

CULLER, JILL E

ART UNIT	PAPER NUMBER
----------	--------------

2854

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/627,431

Applicant(s)

BAKER ET AL.

Examiner

Jill E. Culler

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 and 22-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-21 and 29-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-37 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20030725.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-7 and 22-28, drawn to an apparatus and method for printing on a continuous web comprising an undriven platen roller, classified in class 400, subclass 611.
  - II. Claims 8-21 and 29-37, drawn to an apparatus and method for printing on a continuous web comprising a driven platen roller, classified in class 400, subclass 611.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of use together and have different modes of operation, as the platen roller in each is operated in a different manner.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with Melissa Buss on May 5, 2004 a provisional election was made with traverse to prosecute the invention of group II, claims 8-21 and

29-37. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-7 and 22-28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 144.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 64, 142a, 142b.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

4. The disclosure is objected to because of the following informalities: On page 6, line 16, it appears that the word "of" between "apparatus" and "further" is unnecessary.

Appropriate correction is required.

***Claim Objections***

5. Claims 11, 14 and 30-31 are objected to because of the following informalities:

In claim 11, on line 2, it appears that the word "at" is missing after both instances of the word "roller".

In claim 14, on line 2, it appears that the word "platter" should be "platen" instead. For the purposes of prosecution this has been assumed to be the case.

In claim 30, on line 4, it appears that the word "drive" should be "driven" instead. For the purposes of prosecution this has been assumed to be the case.

Appropriate correction is required.

6. Claims 11-14 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Applicant is reminded that the subject matter of an apparatus claim must provide further structure to the apparatus in order to be considered proper. Claims 11-14 do not provide further structural limitations for the apparatus.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 8, 29 and 32-36 are rejected under 35 U.S.C. 102(b) as being anticipated by PGPUB 2002/0090244 to Wood et al.

With respect to claim 8, Wood et al. teaches an apparatus, 10, for printing on a continuous web, 20, of linerless tape for subsequent application to an article, the continuous web, 20, of linerless tape defined by a print side, 40, and an adhesive side, 42, the apparatus comprising: a support, 52, for a continuous web, 20, of linerless tape; a driven platen roller, 24, located downstream of the support; a print head, 60, associated with the driven platen roller, 24, wherein the driven platen roller directs the continuous web of linerless tape past the print head for printing on the print side thereof; and a driven roller, 82, positioned adjacent the platen roller and downstream of the print head for pulling the web of linerless tape from the platen roller, 24. See page 4, paragraphs 30-34 and Figures 1, 2 and 4a.

With respect to claim 29, Wood et al. teaches a method of printing indicia on a continuous web, 20, of linerless tape for subsequent application to an article, the web, 20, of linerless tape defined by a print side, 40, and an adhesive side, 42, the method comprising: providing a print head, 60, associated with a driven platen roller, 24; providing a driven roller, 82, the driven roller positioned adjacent the platen roller, 24,

downstream of the print head; providing a continuous web, 20, of linerless tape; see page 4, paragraphs 30-34 and Figures 1, 2 and 4a, extending the web, 20, of linerless tape along a tape path from the platen roller to the driven roller such that the platen roller contacts the adhesive side and the driven roller contacts the adhesive side; driving the platen roller to pull the web of linerless tape past the print head when the print head is printing indicia on the print side of the linerless tape; and driving the driven roller to pull a portion of the web of linerless tape from the platen roller when the print head is not printing indicia on the print side of the linerless tape. See page 6, paragraph 45.

With respect to claims 32-33, Wood et al. teaches the adhesive side carries an adhesive, and the driven roller includes a contact surface for engaging the linerless tape, the contact surface being configured to minimize adhesion with the adhesive side by including a knurled surface for minimizing the surface area of the contact surface. See page 5, paragraph 40.

With respect to claim 34, Wood et al. teaches a web of linerless tape having a thickness of less than about 90 microns. See page 5, paragraph 35.

With respect to claim 35, Wood et al. teaches extending the web of linerless tape along a tape path includes establishing a wrap angle of linerless tape around the driven roller of between 10°-180°. See page 5, paragraph 36.

With respect to claim 36, Wood et al. teaches the printing device is a thermal transfer printer and further includes a continuous ribbon disposed between the print head and the print side of the web of linerless tape. See page 4, paragraph 33.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. in view of U.S. Patent No. 4,577,199 to Saiki et al.

Wood et al. teaches all that is claimed, as in the above rejection of claims 8, 29 and 32-36 except for a belt connecting the driven roller and the driven platen roller, and a first drive motor for rotating either the platen roller or the driven roller.

Saiki et al. teaches a printing apparatus having a belt, 11, connecting a driven roller, 6, a driven platen roller, 5, and a first drive motor, 10, for rotating the platen roller and the driven roller. See column 3, lines 57-59 and Figures 3 and .6

It would have been obvious to one having ordinary skill in the art at the time of the invention to use a belt, as in Saiki et al., to connect the platen roller and the driven roller to a first motor in order to directly transmit the power from the motor to the roller.

11. Claims 10-12, 14-20 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. in view of U.S. Patent No. 5,853,117 to Traise.

With respect to claims 10 and 30, Wood et al. teaches all that is claimed, as in the above rejection of claims 8, 29 and 32-36 except for a first drive motor for rotating the driven platen roller and a second drive motor for rotating the driven roller.



Traise teaches an apparatus for feeding linerless labels having an infeed roller, 12, driven by a first drive motor, M1, see column 3, lines 51-54, and an outfeed roller, 30, driven by a second drive motor, M2. See column 3, line 65-column 4, line 6.

It would have been obvious to one having ordinary skill in the art at the time of the invention to drive the driven platen roller and driven roller of Wood et al. using first and second drive motors, as in Traise, in order to be able to separately control the speed and motion of the rollers.

With respect to claims 11 and 31, Wood et al. teaches the platen roller rotates at a first surface speed, and the driven roller rotates at a second surface speed, wherein the second surface speed is greater than or equal to the first surface speed. See page 5, paragraph 38.

Claims 12 and 14 are rejected along with claim 8, as they add no further structure to the apparatus claim.

With respect to claims 15-16, Wood et al. teaches that the adhesive side carries an adhesive, and the driven roller includes a contact surface for engaging the linerless tape, and the contact surface is configured to minimize adhesion with the adhesive side by including a knurled surface for minimizing a surface area of the contact surface. See page 5, paragraph 40.

With respect to claim 17, Wood et al. teaches a web of linerless tape having a thickness of less than about 90 microns. See page 5, paragraph 35.

With respect to claim 18, Wood et al. teaches the driven roller is positioned relative to the platen roller to define a wrap angle of linerless tape along the platen roller between 10°-180°. See page 5, paragraph 36.

With respect to claim 19, Wood et al. teaches the print head is a thermal transfer print head and the apparatus further comprises a ribbon, passed between the print head and the web of linerless tape for printing on the print side thereof. See page 4, paragraph 33.

With respect to claim 20, Wood et al. teaches the platen roller is opposite the print head for supporting the linerless tape during a printing operation. See page 4, paragraph 32.

12. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. in view of Traise as applied to claims 10-12, 14-20 and 30-31 above, and further in view of U.S. Patent No. 4,685,815 to Baranyi.

Wood et al. and Traise teach all that is claimed, as in the above rejection of claims 10-12, 14-20 and 30-31 except that after the printer stops printing, the print head moves away from the platen roller.

Baranyi teaches a printing apparatus having a print head, 20, that moves away from a platen roller, 22, after the printer stops printing. See column 5, lines 46-48 and column 6, lines 20-24.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the print head of Wood et al. to be movable, as in Baranyi so that the linerless tape can move past the print head when it is not printing.

13. Claim 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. in view of Baranyi.

Wood et al. teaches all that is claimed, as in the above rejection of claims 8, 29 and 32-36 except that after the printer stops printing, the print head moves away from the platen roller.

Baranyi teaches a printing apparatus having a print head, 20, that moves away from a platen roller, 22, after the printer stops printing. See column 5, lines 46-48 and column 6, lines 20-24.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the print head of Wood et al. to be movable, as in Baranyi so that the linerless tape can move past the print head when it is not printing.

14. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. in view of Traise as applied to claims 10-12, 14-20 and 30-31 above, and further in view of Saiki et al.

Wood et al. and Traise teach all that is claimed, as in the above rejection of claims 10-12, 14-20 and 30-31, except for a one-way clutch bearing in the driven platen roller; and a one-way clutch bearing in the driven roller.

Saiki teaches a one-way clutch bearing on the driven roller. See column 4, lines 1-13.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the rollers of Wood et al. as modified by Traise, to both have a one-way clutch bearing so that they are only subjected to rotational torque when being moved in a forward direction.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,035,521 to Stone, U.S. Patent No. 5,915,864 to Austin et al., U.S. Patent No. 6,357,941 to Amano et al., and U.S. Patent No. 6,652,172 to Wood et al. each teach an apparatus for printing on a continuous web having obvious similarities to the claimed subject matter.

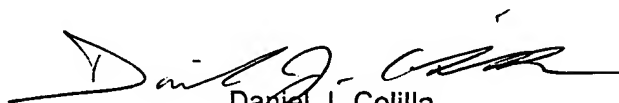
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571) 272-2159. The examiner can normally be reached on M-Th 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2854

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jec



Daniel J. Colilla  
Primary Examiner  
Art Unit 2854